In the World of Women

Insight and Outsight

SAVE OCULIST'S BILLS BY PROPER HOME LIGHTING

Diffused Light Means Quiet Nerves and Strong Eyes.

By CLARA BROWN LYMAN.

THE illumination of the home by artificial light—the substitution for daylight of gas and electricity—means something more than the mere act of turning on these modern "pseudo-suns," as Robert Louis Stevenson called them in his time, in order that when daylight fails we may proceed about our tasks and pleasures unhampered by darkness.

In fact, the great advance that the lighting science has made from the days of the tallow candle and oil lamp does not concern the advantage and convenience of the modern illuminants nearly so much as it does the knowledge of the principles that underlie their correct and incorrect use as related to the human eye.

It is a common experience to hear people speak of the oil lamp or of candle light as being "better for the eyes" than gas or electricity. This is not true, but the impression arises from a natural instinct, unanalyzed by those who do not know, to turn to less light as a relief to overstrained eyes and nerves from too brilliant, incorrectly used modern light sources.

NOT LESS LIGHT, BUT BETTER.

Right or wrong lighting is not a question of the illuminant one uses.

The flickering candle, unshaded oil lamp, the flickering, unsteady open-flame gas burner and the over-brilliant gas mantle or electric lamp are all upon the same plane of danger to the eyes.

Artificial lighting is right or it is wrong in proportion as the light source is properly or incorrectly shaded, rightly or wrongly used, well or poorly placed in relation to the work it is called upon to do.

Correct artificial lighting is that which is diffused or shed evenly and efficiently from a source that is wholly concealed from the eyes; shaded and placed so that it is possible to see with as much eye comfort as in daylight.

It is incorrect whenever or under whatever circumstances the eye is confronted with the light source unshaded, poorly shaded or placed so that the eye cannot escape its glare.

WHAT HAPPENS TO THE EYES.

Eye strain, which leads to defective vision, sometimes to blindness, is one of the most serious results of subjecting the eyes to the wrong kind of lighting.

The eye is a delicate and sensitive part of the human equipment and in the process of seeing the optic nerve, the eye muscles and the iris, which gives the eye its color, all work hard, like the faithful servants that they are, to produce clear vision.

If they are subjected to a flickering light, an overbright light or a light that is too dim each does its part in trying to make proper adjustment.

For instance, the iris opens wide in very dim light and closes down in overbright light, and if the unthinking human keeps the iris "seesawing" the muscle that governs it tires.

The lens of the eye, unlike that of the camera, automatically changes in thickness to make a clear image on the retina for seeing at different distances. When the light is dim or bad the focussing muscle tires in its effort to make objects look clearer. Likewise, the muscles that move the eye about weary from overwork. The result is easily understood if one stops to think about it.

The location of an artificial light source in relation to the eyes is, then, of first importance in the correct illumination of the home, especially where there are children in the family whose eyesight later in life may be seriously and permanently injured through lighting mistakes as common as they are pernicious in their effects.

To let a baby lie in its carriage with sunlight shining full into its helpless eyes is little short of a crime. Likewise, to let an infant or older child sleep in a room artificially lighted by a group of pendant ceiling lights, hanging glaring down into the room; staring bracket lights on the walls or by unshaded lights of any kind, whether table lamps or fixtures, is to start it on the road to nerves, eyeglasses and the handicap of defective vision that sometimes leads to blindness.

Sleeplessness and irritability, often unaccountable in a seemingly normal, healthy child, can frequently be traced to a wrongly lighted sleeping room. For, while little light is used in such a room, and then only for a brief interval, the sudden turning on of a glaring, unshaded light out of utter darkness is an eye and nerve shock that will, if made a practice, take its toll later on.

This holds just as good in the case of older people, with whom a large proportion of "inexplicable fatigue," headache, indigestion and other bodily ills associated with nerve disorders is directly traceable to the practice of reading in bed by an unprotected light.

TAKE CARE OF NIGHT LIGHTS.

Night lighting of any sleeping room, especially that of a child, should be so arranged that, whenever it is necessary to turn on the light, there is no shock. It should, indeed, be possible to light such a room at any time of night without awakening the child.

This can be accomplished with lights of low intensity installed in an opaque bowl (in the case of electricity) or a bowl of diffusing glassware (if the illuminant is gas), hung from the ceiling. Or it can be accomplished with wall lights or portable lamps shaded with green glassware or thick neutral colored fabric through which the enclosed light source cannot be seen.

Where wall lights or portable lamps are used the bed should be placed, if possible, in such a position that the eye will not encounter the light source.

Study lighting for children, when they reach the period of "home work" at school, presents another important problem for mothers to solve. It confines itself, however, chiefly to a question of a properly shaded table lamp.

The best test in selecting a lamp that will help them to see comfortably and accomplish their tasks with the minimum of eye fatigue is that it shall not be possible to see the light source under or through the shade; that the shade shall be of a shape that spreads the light evenly all over the study table and that, if of glass, it shall be plain white, amber or light green in color and of a quality that will diffuse, and not absorb, light.

An excellent example of the ideal study lamp is illustrated here. It tells its own story and is to be recommended as a general reading or working light for any one—old or young.

This brief discussion of glare and diffusion, of the principles of correct and incorrect artificial illumination and of the necessity for avoiding eye strain will serve to make clearer the reasons for the invention and general adoption of the modern lighting methods.

MODERN METHODS OF LIGHTING.

These are known as the indirect and semi-indirect systems of lighting, as contrasted with the first known method, called the direct, now adjusted to modern lighting standards so that it may be successfully used for certain purposes.

The indirect and semi or partly indirect methods are the result of years of study by the lighting scientists to solve the problem of the elimination of glare and the producing of efficient, well diffused light, shed in the proper direction for the eyes and adequate for any work they may be called upon to do.

Glare may result from looking at the light source itself, which produces an effect similar to looking at the sun, or it may result from the almost equally harmful reflection of the light source up into the eye from a white, glazed, highly polished or mirror surface opposite to or over which it might be placed.

In the direct method the light is shed downward directly upon a room or object, thereby making it necessary to see that the light source is properly shaded and placed in relation to the eyes, in order to avoid the glare that would otherwise result.

In both the newer methods the light source is completely concealed from the eye in a bowl-shaped fixture suspended from a white or light colored ceiling against which the light rays are thrown and from which they are reflected ond diffused without glare. The eye and nerve relief and the general sense of well-being that come from working under such lighting conditions can scarcely be appreciated unless one has tried it after having suffered under improper illumination in office or home.

INDIRECT AND SEMI-INDIRECT SYSTEMS.

In the wholly indirect system the bowl or container is of metal or of opaque glassware, lined with metal or glass reflectors, in this way forcing the ceiling and side walls of the room to do all the work of diffusion.

In the semi-indirect the container is usually of translucent, partly opaque glassware. Sometimes it is made of fabric, lined with a highly glazed reflecting inner surface. Here the ceiling and walls do the major part of the work of diffusing the light, yet a small amount of light is shed downward directly, but softened and mellowed and without glare, through the bottom of the bowl.

The newer methods have also been adapted to bracket lights and portable lamps, so that it is possible with little trouble and expense to correct wrong direct lighting conditions. The adjusting of the older method to the newer standards is, indeed, largely a matter of proper shades and globes and of correcting wrong location of fixtures and lamps.

For instance, a direct, unshaded or badly shaded light source should never be hung in front of a mirror, where the reflection multiplies the glare. Nor should such a light be hung over a glass-topped table or desk where its glaring image is reflected up into the eye.

Likewise, a table or desk lamp, unless it happens to be of the type in which the light source is completely concealed, should never stand upon a table or desk with a reflecting surface. To correct such a condition cover the table or desk with a dark material of some kind, blotter, felt or fabric, while the light is in use.

In a dining room where a dome is used it should be hung at such a height that those who sit around the table cannot see the light source. Also, as a further precaution against the glare resulting from the reflection up into the eyes of the downward directed electric light upon a white table cloth or highly polished table surface the bottom of the dome may be covered with silk that is cream or amber colored. If it is a gas dome the mantel may be concealed in a porcelain globe specially designed for this purpose.

These suggestions for improving some of the commonest faults of direct lighting conditions are given because it is often impracticable or too expensive for the housewife immediately to install fixtures of the newer kind throughout the house. Again, it is often advisable to combine the old and new to meet certain conditions.

The lighting of a living-room, the gathering place of the family, should be planned to give good general illumination and also to provide local lights for the table, piano or a favorite corner. Here an indirect or semi-indirect ceiling fixture (the latter is preferable with gas) will furnish adequate and agreeable general illumination, while properly shaded wall lights, table lamps and floor portables provide the local illumination for the individual.

COMBINING OLD AND NEW METHODS.

In the kitchen, pantry and bathroom a combination of the old and new is frequently desirable. The one is used for general illumination, the other to concentrate light on a particular location.

In a bedroom, also, properly shaded direct lights over (not in front of) a mirror and on either side of a dressing-table are useful, combined with one of the newer methods for general illumination.

And in connection with the lighting plan for the various rooms in the house nothing is more important for the sake of one's bank account, as well as for one's eyes, than that the correct amount of light in proportion to the size of the room shall be used.

This has been calculated mathematically and is obtainable without cost from the illuminating engineering department of the lighting company to which you pay your bills. In addition to this information, you may also obtain advice as to its use throughout the room in order to get the best work out of the light at the least expense.

In asking for this information it is necessary to give the size of the room to be lighted and the color of the walls and ceiling. A room decorated in light tones requires far less artificial illumination than one in which side walls and ceiling are of a color that absorbs the light, such as red, green, dark blue, dark brown, etc.

It is also wise to give the kind of fixtures and lamps that are used in the room, in order to learn where and how the lights may be placed to your best advantage.

Knowing the right amount of light to use saves the cost of lighting to a degree that is unbelievable until one has tried it. It also saves the eyes, because, unless advice is asked, a room may be over-illuminated or under-illuminated. Either one is both unhygienic and expensive.

How vital to public welfare this question of the right amount of artificial light for the eyes has become may be judged from the fact that the subject has now been made a part of the work of the Federal, state and local health boards.

WORK OF THE HEALTH BOARDS.

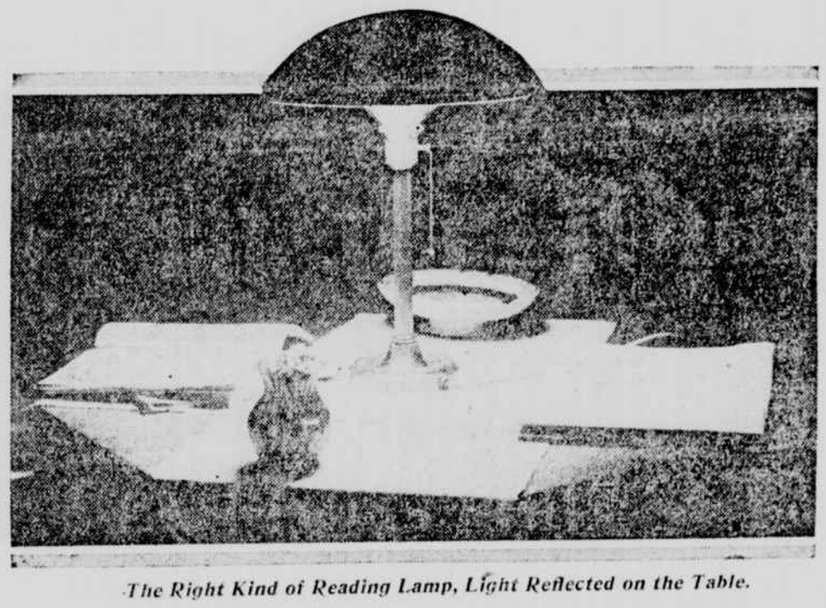
For the past year or two these boards have made exhaustive investigations of lighting conditions as they affect the eyesight and general health of workers in factories, shops and offices.

The Federal board, under the direction of the surgeon-general, has begun a series of interesting experiments at its lighting laboratory in Pittsburgh; the Health Board of New York State, coöperating with a committee of illuminating engineers, is laboring to determine a basis for "adequate illumination" for factories and workshops by testing thousands of pairs of eyes of workers in such places with a view to possible legislation on behalf of proper lighting conditions for those who must use their eyes by artificial light in industrial occupations.

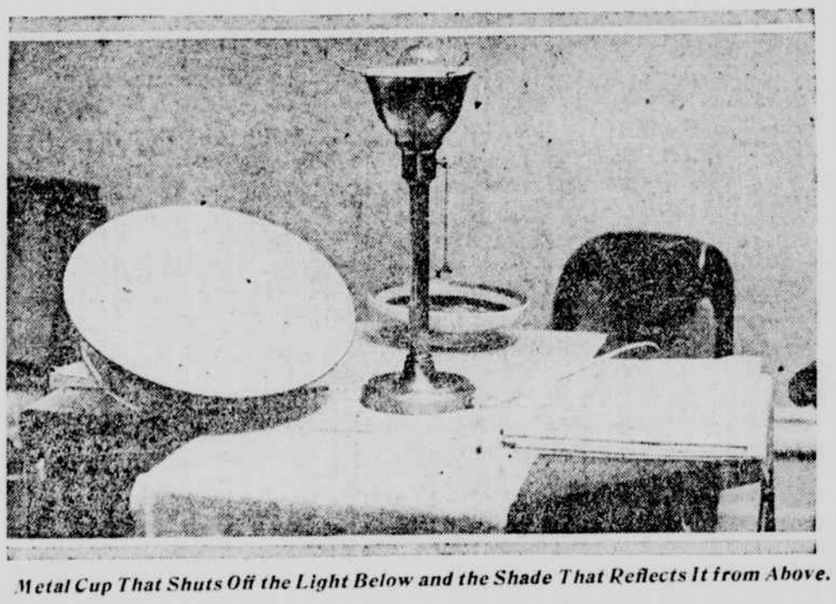
The New York Board of Health has not only examined the eyes of workers and of school children, but has made recommendations of a character that have the force of a demand for improved illumination wherever improper lighting conditions prevail. The board has also instituted an illustrated lecture course on eyesight and lighting and, in coöperation with various societies and organizations, is distributing educational literature on the subject.

It is interesting and important to know that the findings of these various health boards, of the Society for the Prevention of Blindness and of Dr. Alger, the eye specialist who weekly examines dozens of pairs of eyes at one of the local institutions for the blind, prove beyond argument that not only is nearly 90 per cent of defective vision and blindness preventable, but that in a large proportion of cases it can be traced to the incorrect use of artificial light at home and in the working place.

When so serious and painstaking an attempt is being made on the part of scientists and public officials to improve lighting conditions in the working community as one of the necessary safeguards to public health, the duty of the individual as regards the proper lighting of the home is plain, particularly when one learns that, of over 300,000 school children examined for physical defects last year by the New York Board of Health, 27,000 were found to have defective eyesight!



The Right Kind of Reading Lamp, Light Reflected on the Table.



Metal Cup That Shuts Off the Light Below and the Shade That Reflects It from Above.

A Room Perfectly Illuminated by Diffused Light.

PRESERVING AND PICKLING SEPTEMBER FRUITS

By VIRGINIA CARTER LEE.

THE BEST housekeeper ever known to the present writer did not make one day's toil of preserving, as so many housewives do. Instead, she "put up" a can or two of fruit every few days. When the season was over she had her winter supply of delicious relishes and conserves with but very little effort.

She was what is known as a "good provider" and believed in her household having the best fruit and all the fruit that could possibly be eaten, so that both peaches and pears were bought by the large basket about twice a week.

This is an excellent plan to follow during the early part of September, when the weather is not hot enough to make the fruit spoil rapidly, and yet when it can be well ripened before eating. Peaches and pears, when bought this way in quantity, should be laid on an old clean sheet on the attic floor, so arranging the fruit that the pieces will not touch each other.

Be very careful that the fruit does not show the slightest sign of decay. Lay aside every peach or pear that is at all bruised for immediate use, as they are sure to be ripe enough either to be eaten raw or cooked in some way.

Every day go over the fruit that is ripening on the floor and pick out the mellowest for the table; also enough to make a few jars of preserves. Thus in odd moments or while a meal is cooking the provident housewife may put up two or three quarts of fruit without realizing the labor.

Fine, ripe, perfect peaches are best when peeled after this fashion: Put a few in a bowl and pour over them a quart of boiling water. Do not allow them to stand in it for more than two or three minutes; then plunge quickly into cold water. By using this method the skin will roll off as easily as from a scalded tomato.

After peeling, cut each peach in two and remove the pits, add the cracked pits to the boiling syrup (prepared in the proportion of equal parts of sugar and water) drop in the peaches, cook until they look clear and fill into the sterilized jars. Keep the jars hot; boil the syrup fast, skimming it carefully; fill the jars to overflowing and run a silver knife around the inside, between the fruit and the glass, to release any air bubbles. Adjust the rubbers and the hot covers, seal air-tight and there will be no possible question of a single jar "spoiling," even if kept for two or three years, provided they are stored in a cool, dry place.

When the peaches or pears are very large it is always the best plan to cut them in halves so that they will not be crushed in forcing them into the jars. As pears are rather tasteless when cooked alone, a few slices of lemon, whole cloves or small pieces of ginger may be added to the different jars for the sake of variety. In the same manner, bits of pineapple placed in some of the peach jars give a very novel and pleasing flavor.

No preserve closet would be quite complete without a stock of spiced or pickled fruit. Fortunately these toothsome delicacies are as inexpensive and easy to prepare as they are delicious.

An excellent recipe that can be adopted for all varieties of fall fruit calls for four pounds of light brown sugar to seven pounds of fruit, one pint of vinegar, one ounce of stick cinnamon, and half an ounce of whole cloves and allspice, tied in a small cheesecloth bag.

Peel the fruit carefully, sprinkle the sugar over it and let stand for twenty-four hours. At the end of that time, the sugar will be reduced to a syrup. Drain it off the fruit, add the vinegar and spice bag, and let boil for half an hour. Skim thoroughly, put in the fruit and simmer very gently until it can be pierced with a straw. Now lift the fruit out carefully to a stone jar; allow the syrup to cook down until quite thick, pour over the fruit and put away, tightly covered, in a cool, dry place.

Many recipes given for spiced fruits order the syrup to be boiled morning after morning. This labor may be avoided by following the above directions, which will give equally good results.

This formula may be used for pears, peaches, plums, crabapples, watermelon rind and tiny green muskmelons, which when pickled are called sweet mangoes. Quinces also make a very finely-flavored sweet pickle, but they must be steamed until tender before adding to the spiced syrup.

If your family is small, use pint jars, rather than quarts. It allows of a larger variety of fruit being served without its spoiling—as happens occasionally when a quart jar stands open for some time.

In "putting up" crabapples leave the fruit on the stems and cook very carefully in the syrup to prevent breaking. Preserved whole in a rich, red syrup, crabapples make a most sightly and excellent preserve, as well as one of the cheapest.

If the lids of preserving jars are put into boiling water, and lifted when required with a skimmer, their heat will do much in helping to preserve the fruit. They should be so hot when adjusted to the jars that they cannot be handled without a cloth.

:: *Some Pickle Recipes That Are Worth Trying* ::

By JEANNETTE YOUNG NORTON.

GRAPE CATSUP.

Wash and stem five pounds of ripe grapes. Put into a kettle with a pint of water and let them melt down, then simmer until they are cooked. Strain through a puree sieve and add a pint of vinegar, a half teaspoonful of salt and a teaspoon each of cinnamon, cloves, allspice and pepper. Boil until slightly thickened, then bottle, cork and seal.

SLICED DELIGHT.

Pare and slice thin one hundred well washed small cucumbers and twenty white onions. Put a pint of salt over the pickle and let stand over night. Next morning drain thoroughly. Add a quarter pound each of celery and mustard seed, a saltspoon of red and a half teaspoon of black pepper and a pint of Lucca oil. Mix all well together, then put in a crock and cover with good vinegar, pressing all down with a weighted plate. Let stand one week and they are ready for use.

PICKLED ARTICHOKES.

Wash the artichokes and let them stand in strong salt water over night. In the morning dry and rub off the skins with a cloth, pack them into a crock and cover with vinegar that has been boiled with a spice bag, a tablespoon of salt and a piece of alum as big as a filbert. Reheat the vinegar once a week for three weeks.